



Pediatric Cancers

Advance research for pediatric hematologic cancers: Hematologic malignancies, such as leukemia are one of the leading causes of cancer-related deaths in children. Basic, translational, and clinical research efforts addressing early diagnosis, treatment, and prevention will be vital to improving survival rates in children fighting cancer.

- a) **What is the research problem?** Although survival rates have improved greatly for childhood cancers, like acute lymphoblastic leukemia, there is still a great need for new therapeutic approaches, such as immunotherapy to help treat high-risk leukemias, as well as relapse. In addition, the effective use of genomic approaches will provide new insights into childhood hematologic cancers. Some of the challenges in pediatric hematologic cancers include:
 - i. Limited access to novel therapies for the pediatric population;
 - ii. High toxicity levels due to the types of therapies designed for pediatric hematologic malignancies; and
 - iii. Absence of robust clinical trials for pediatric hematologic malignancies.

- b) **What is your proposed solution?**
 - i. Develop funding opportunities for basic and translational research that is aimed at the discovery of new therapeutic targets in pediatric hematologic cancers;
 - ii. Support research focused on identifying determinants of toxicity in children;
 - iii. Develop funding opportunities to support precision medicine trials in children with hematologic cancers and/or expanding the pediatric NCI-MATCH trial to include this population; and
 - iv. Provide support for clinical trials testing novel therapies in children with hematologic malignancies.

- c) **How will your solution make a difference?** Advancing basic, translational, and clinical research in pediatric hematologic cancers will enhance the effectiveness of existing treatments, as well as foster the development of novel therapies that will improve long-term survival and the quality of life of children with cancer.